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MANITOBA
DEPARTMENT OF ENERGY AND MINES

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Minister

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MINERAL RESOURCES DIVISION

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ACCIDENTS AT MINES

For the year ending December 31st

1982

Prepared by
Mining Engineering and Inspection Section

36

ACCIDENTS AT MINES - 1982

During 1982, 552 lost time injuries due to accidents were reported compared with 743 in 1981. A lost time injury is one which results in a worker being disabled during a working day after the day on which the accident occurred, and for which compensation becomes payable by the Worker's Compensation Board of Manitoba. Accidents that result in fatal injuries are included.

In 1982, the frequency of lost time injuries reported at mining operations in Manitoba decreased by 16 per cent to 48 per million manhours worked from a frequency of 57 in 1981. This decrease continued the trend extending over the past two years.

Employment at mines in 1982 decreased 12.3 per cent to an annual average of 6,262 persons employed from an average of 7,135 in 1981, while the manhours worked at mines decreased by 12.1 per cent to 11,451,686 manhours in 1982 from 13,016,922 in 1981.

The significant decrease in the frequency of lost time injuries as compared with the 1981 figures was entirely due to a decrease of 28 per cent in the largest group "Producing Mines". The smaller groups all experienced increased frequences: "Developing Mines and Mining Contractors", up 65.9 per cent; "Mine Construction Contractors", up 36 per cent; "Quarries", up 143 per cent; "Gravel, Sand Pits, Clay, Bentonite, Peat", up 25 per cent; "Contract Diamond Drilling", up 40 per cent. The decrease in employment and manhours was reflected in all groups except "Quarries".

A total of 10,598 days were reported lost due to injuries in 1982, compared with 16,155 in 1981, a 34 per cent decrease. The severity rate at 925 days lost per million manhours, was down by 24 per cent from 1,241 in 1981.

There were three fatal accidents in 1982 causing the death of three men. One accident resulted from heavy equipment going through the ice on a lake, one occurred during timbering operations during shaft sinking, and one was caused by a fall of loose ground during a scaling operation.

The major causes of injuries were "Lifting, Moving" 24 per cent; "Slips, Falls, Twists" 16 per cent; "Striking, Struck By" 9 per cent, and "Hand" and "Power Tools" 14 per cent. These four classifications accounted for 63 per cent of all injuries. Seventy five (75) per cent of the injuries reported were classified as "Strains and Sprains" and "Cuts and Bruises".

Six reported incidents involving explosives resulted in lost time injuries to two workers.

TABLE NO. 1

MANHOURS WORKED AND LOST TIME INJURIES - ALL MINING OPERATIONS

YEAR	PERSONS INJURED			DAYS LOST	MANHOURS WORKED	FREQUENCY PER MILLION MANHOURS WORKED		
	NON FATALLY	FATALLY	TOTAL			NON FATALLY	FATALLY	TOTAL
1982	549	3	552	10,598 *	11,451,686	48	0.26	48
1981	742	1	743	16,155 *	13,016,922	57	0.08	57
1980	914	6	920	17,305 *	13,812,595	66	0.43	67
1979	807	4	811	17,882 *	13,158,509	61	0.30	62
1978	827	2 +	829	18,268 *	13,356,965	62	0.15	62
1977	924	12	936	16,353 *	15,012,725	62	0.80	62
1976	928	4	932	17,347 *	15,785,391	59	0.25	59
1975	1,121	9	1,130	17,871 *	17,109,983	66	0.53	66
1974	1,193	3	1,196	19,396 *	17,422,690	68	0.17	69
1973	970	11	981	18,679 *	16,202,092	60	0.67	61
1972	867	8 **	875	20,724 *	16,560,734	52	0.48	53
1971	562	13	575	14,459 *	18,693,620	30	0.70	31
1970	544	7	551	16,851 *	20,895,588	26	0.33	26
1969	607	8	615	18,804 *	20,897,335	29	0.38	29
1968	681	12	693	20,395 *	20,359,896	33	0.59	34
1967	764	9	773	20,297 *	17,336,372	44	0.52	45
1966	679	7	686	12,456	15,173,883	45	0.46	45
1965	594	4	598	11,965	13,873,103	43	0.29	43
1964	546	4	550	6,403	13,143,258	42	0.30	42
1963	618	8	626	9,778	13,101,057	47	0.61	48
1962	830	3	833	12,290	13,289,453	62	0.23	63
1961	1,101	7	1,108	11,898	12,241,625	90	0.57	91
1960	871	2	873	11,710	9,997,233	87	0.20	87
1959	747	5	752	12,165	8,342,391	90	0.60	90
1958	479	2	481	7,860	8,334,929	57	0.24	58
AVERAGE FREQUENCY FOR LAST 10 YEARS						61	0.38	62

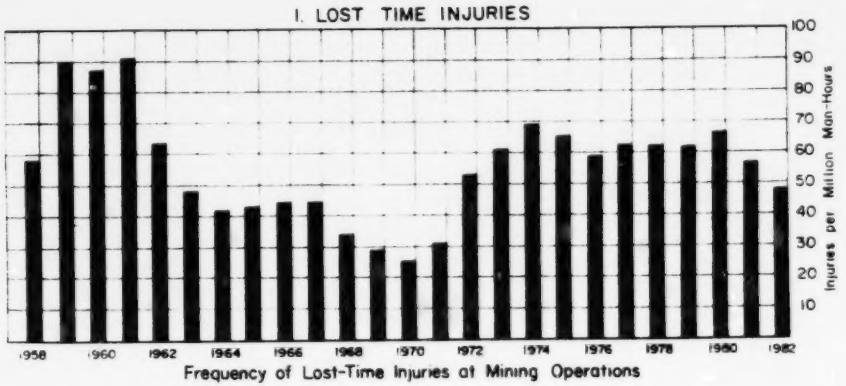
* Includes days lost for injuries occurring in previous years.
** Does not include two fatalities investigated, but not classed as mining accidents.
\+ Does not include one fatality investigated, but not classed as a mining accident.

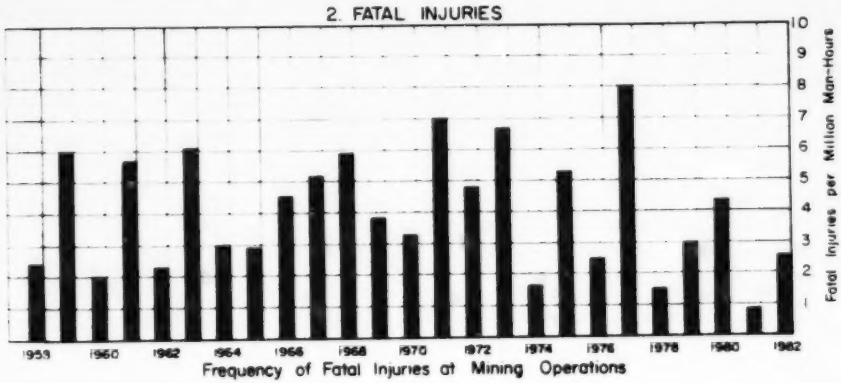
TABLE NO. 2

EMPLOYMENT - ALL MINING OPERATIONS

Number of Employees Reported Monthly - Average for 12 Months

YEAR	PRODUCING MINES	DEVELOPING MINES AND MINING CONTRACTORS	MINE CONSTRUCTION CONTRACTORS	QUARRIES	GRAVEL AND SAND PITS, CLAY, PEAT, BENTONITE	CONTRACT DIAMOND DRILLING	TOTAL
	GROUP A	GROUP B	GROUP C	GROUP D	GROUP E	GROUP F	
1982	5,266	148	116	167	422	143	6,262
1981	5,781	292	137	147	562	216	7,135
1980	5,843	178	199	155	715	181	7,271
1979	5,438	184	173	174	793	170	6,932
1978	5,401	202	241	180	760	116	6,900
1977	6,220	257	130	181	734	146	7,668


1. LOST TIME INJURIES
100
90
80
70
60
50
40
30
20
10
Injuries per Million Man-Hours
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
Frequency of Lost-Time Injuries at Mining Operations


2. FATAL INJURIES
10
9
8
7
6
5
4
3
2
1
Fatal Injuries per Million Man-Hours
1959
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
Frequency of Fatal Injuries at Mining Operations

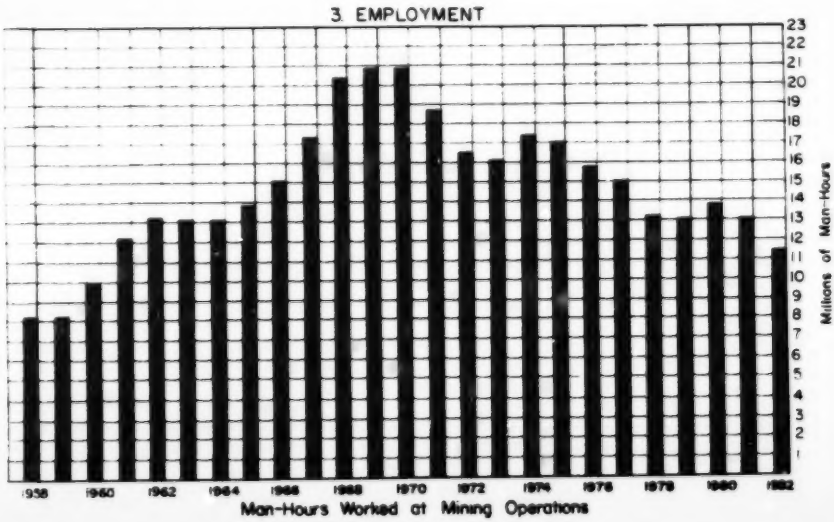

3. EMPLOYMENT
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
Millions of Man-Hours
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
Man-Hours Worked at Mining Operations

TABLE NO. 3

MANHOURS WORKED AND LOST TIME INJURIES - BY CLASS OF OPERATION

CLASS OF OPERATION	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
PRODUCING MINES	1982	382	7,414	9,724,308	39.28
	1981	565	12,393	10,335,176	54.67
	1980	689	12,821	11,159,066	61.74
	1979	627	14,256	10,220,337	61.34
(GROUP A)	1978	648	14,491	10,352,964	62.59
DEVELOPING MINES	1982	28	332	257,968	108.54
AND	1981	42	906	655,950	64.03
MINING CONTRACTORS	1980	38	443	369,011	102.98
	1979	49	1,298	402,134	121.85
(GROUP B)	1978	53	1,656	402,323	131.73
MINE CONSTRUCTION	1982	16	284	205,484	77.86
CONTRACTORS	1981	15	620	261,777	57.30
	1980	20	575	437,792	45.68
	1979	16	129	381,325	41.96
(GROUP C)	1978	13	177	512,108	25.39
QUARRIES	1982	36	627	300,392	119.84
	1981	13	87	263,885	49.26
	1980	21	343	288,714	72.74
	1979	7	93	319,700	21.89
(GROUP D)	1978	12	183	351,143	34.17
GRAVEL, SAND PITS,	1982	66	1,590	714,097	92.42
CLAY, BENTONITE, PEAT	1981	70	621	946,636	73.95
	1980	87	1,423	1,108,415	78.49
	1979	56	1,080	1,397,162	40.08
(GROUP E)	1978	73	1,169	1,449,165	50.37
CONTRACT DIAMOND	1982	24	351	249,437	96.22
DRILLING	1981	38	1,528	553,498	68.65
	1980	65	1,700	449,597	144.57
	1979	56	1,026	437,851	127.89
(GROUP F)	1978	30	592	289,262	103.71
TOTALS -					
ALL MINING OPERATIONS	1982	552	10,598	11,451,686	48.20

TABLE NO. 4

MANHOURS WORKED AND LOST TIME INJURIES - BY COMPANY

PRODUCING MINES (GROUP A)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	104,180	0
	1981	0	0	214,627	0
	1980	2	133	184,774	10.82
	1979	1	20	68,372	14.63
	1978	0	0	38,302	0
ANDERSON LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	44,793	0
	1981	3	173	91,210	32.89
	1980	1	33	85,562	11.69
	1979	4	76	83,853	47.70
	1978	10	71	101,218	98.80
CENTENNIAL MINE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	91,777	0
	1981	0	0	184,605	0
	1980	0	0	178,561	0
	1979	1	156	188,411	5.31
	1978	2	69	215,853	9.27
CHISEL LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	132	2,085	3,186,529	41.42
	1981	112	2,165	2,683,121	41.74
	1980	106	1,777	2,661,304	39.83
	1979	106	1,516	2,499,536	42.41
FLIN FLON SURFACE	1978	145	1,505	2,500,977	57.98
FLIN FLON UNDERGROUND					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	6,697	0
	1981	0	0	15,502	0
	1980	0	0	22,605	0
	1979	0	0	24,793	0
	1978	0	0	14,397	0
GHOST LAKE-LOST LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	59,276	0
	1981	2	81	145,815	13.72
	1980	0	0	143,101	0
	1979	2	55	130,526	15.32
	1978	1	13	135,173	7.40
OSBORNE LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	1	74	319,252	3.13
SNOW LAKE SURFACE					

PRODUCING MINES (GROUP A) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	2	117	4,165	480.19
SPRUCE POINT					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	167,204	0
	1981	6	369	359,779	16.68
	1980	6	242	347,516	17.26
	1979	1	104	350,405	2.85
	1978	3	622	344,626	8.71
STALL LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	2	236	120,128	16.65
TROUT LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	3	15	105,381	28.47
	1981	10	291	135,192	73.97
	1980	16	134	124,415	128.60
	1979	11	499	123,170	89.30
	1978	7	256	80,038	87.46
WESTARM MINE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	1	31	36,552	27.36
	1981	3	284	84,835	35.36
	1980	1	94	48,769	20.50
	1979	0	195*	2,145	0
	1978	0	0	3,671	0
WHITE LAKE					
INCO METALS COMPANY	1982	0	0	0	0
	1981	0	0	0	0
	1980	0	0	0	0
	1979	0	0	0	0
	1978	0	128*	28,283	0
BIRCHTREE		(OPERATIONS TEMPORARILY SUSPENDED)			
INCO METALS COMPANY	1982	1	38	84,225	11.87
	1981	5	119	94,983	52.64
	1980	5	242	109,624	45.61
	1979	7	461	114,651	61.05
	1978	9	389	140,048	64.26
PIPE LAKE					

PRODUCING MINES (GROUP A) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
INCO METALS COMPANY	1982	82	2,941	3,601,458	22.77
	1981	137	6,339	3,601,117	38.04
	1980	244	6,425	4,466,041	54.63
	1979	250	7,774	4,051,924	61.69
THOMPSON SURFACE	1978	274	8,524	4,274,311	64.10
THOMPSON UNDERGROUND					
SAN ANTONIO JOINT VENTURE LTD.	1982	30	563	393,986	76.14
BISSETT					
SHERRITT GORDON MINES LIMITED	1982	45	484	582,321	77.27
	1981	69	784	1,052,421	65.56
	1980	70	1,093	1,017,741	68.78
	1979	34	762	932,756	36.45
AGASSIZ, FOX MINE	1978	21	182	914,424	22.97
AND LYNN LAKE					
SHERRITT GORDON MINES LIMITED	1982	80	740	625,694	127.85
	1981	209	1,555	1,426,012	146.56
	1980	225	2,483	1,536,320	146.45
	1979	194	2,274	1,450,841	133.71
RUTTAN MINE	1978	164	2,271	1,374,440	119.32
TANTALUM MINING	1982	3	40	190,690	15.73
CORPORATION OF CANADA	1981	9	233	245,957	36.59
LIMITED	1980	13	165	232,733	55.86
	1979	16	364	198,954	80.42
BERNIC LAKE	1978	12	461	187,203	64.10

DEVELOPING MINES & MINING CONTRACTORS (GROUP B)

AURORA QUARRYING LIMITED	1982	0	0	1,119	0
FOR: HUDSON BAY MINING	1981	0	0	2,236	0
AND SMELTING CO., LIMITED	1980	0	0	2,627	0
	1979	0	0	5,980	0
FLIN FLON	1978	10	575	26,309	380.10
WESTARM					
AURORA QUARRYING LIMITED	1982	18	237	157,036	114.62
FOR: HUDSON BAY MINING	1981	13	245	126,055	103.13
AND SMELTING CO., LIMITED	1980	7	87	79,198	88.39
	1979	5	53	36,657	126.40
SNOW LAKE	1978	9	404	35,849	251.05
SPRUCE POINT					

DEVELOPING MINES & MINING CONTRACTORS (GROUP B) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
AURORA QUARRYING LIMITED	1982	0	0	0	0
FOR: SHERRITT GORDON MINES	1981	0	0	0	0
LIMITED	1980	3	57	22,110	135.69
	1979	9	834	92,690	97.10
	1978	12	257	81,399	147.42
RUTTAN MINE					
FLIN FLON MINING	1982	0	0	0	0
CONTRACTORS FOR:	1981	3	106	8,368	358.51
HUDSON BAY MINING AND SMELTING CO., LIMITED					
CENTENNIAL MINE					
WESTARM MINE					
FLIN FLON MINING	1982	0	0	12,527	0
CONTRACTORS FOR:	1981	1	65	15,632	63.97
HUDSON BAY MINING AND SMELTING CO., LIMITED					
GHOST LAKE MINE					
R.F. FRY AND ASSOCIATES	1982	0	0	0	0
(PACIFIC) LIMITED FOR:	1981	6	57	98,096	61.16
HUDSON BAY MINING AND	1980	2	23	6,587	303.63
SMELTING CO., LIMITED					
TROUT LAKE					
R.F. FRY AND ASSOCIATES	1982	0	0	0	0
(PACIFIC) LIMITED FOR:	1981	0	0	0	0
HUDSON BAY MINING AND	1980	2	24	27,477	72.79
SMELTING CO., LIMITED	1979	5	65	93,420	53.52
	1978	6	128	95,723	62.68
WHITE LAKE					
KESMARK MARINE LTD.	1982	7	29	58,393	119.88
FOR: INCO METALS COMPANY					
THOMPSON					
F.A. MACINTYRE LIMITED	1982	3	66	20,280	147.93
FOR: HUDSON BAY MINING	1981	6	137	69,991	85.73
AND SMELTING CO., LIMITED	1980	8	57	46,340	172.64
	1979	17	217	52,062	326.53
	1978	11	122	56,810	193.63
OSBORNE LAKE MINE					

DEVELOPING MINES & MINING CONTRACTORS (GROUP B) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
PATRICK HARRISON AND COMPANY LIMITED FOR: SHERRITT GORDON MINES LIMITED	1982	0	0	0	0
	1981	8	121	98,328	81.36
	1980	15	194	142,775	105.06
	1979	3	31	20,432	146.82
	1978	0	0	1,114	0
RUTTAN MINE					
J.S. REDPATH LIMITED FOR: SHERRITT GORDON MINES LIMITED	1982	0	0	8,613	0
	1981	2	98	26,804	74.62
	1980	0	0	12,845	0
	1979	0	0	1,318	0
RUTTAN MINE					
SAN ANTONIO JOINT VENTURE LTD.	1982	0	0	0	0
	1981	3	77	210,440	14.26
	1980	1	1	29,052	34.42
BISSETT	(IN PRODUCTION - 1982)				

MINE CONSTRUCTION CONTRACTORS (GROUP C)

CAMPBELL NORTH LTD. FOR: INCO METALS COMPANY	1982	0	0	4,097	0
	1981	0	0	11,603	0
	1980	1	5	40,406	24.75
	1979	0	0	39,272	0
	1978	0	0	21,734	0
THOMPSON					
CROWN TIRE SERVICE FOR: SHERRITT GORDON MINES LIMITED	1982	0	0	0	0
	1981	0	0	3,785	0
	1980	0	0	8,099	0
	1979	1	1	10,781	92.76
	1978	0	0	13,447	0
RUTTAN MINE					
DOMINION BRIDGE COMPANY LIMITED	1982	0	0	777	0
	1981	0	0	0	0
	1980	0	0	6,871	0
	1979	0	0	4,579	0
	1978	2	29	65,729	30.43
VARIOUS LOCATIONS					
LA FURLANE PRE-CAST LTD. FOR: INCO METALS COMPANY	1982	2	18	8,940	223.71
	1981	0	0	12,274	0
	1980	1	17	24,597	40.65
	1979	0	0	7,520	0
	1978	0	0	3,655	0
THOMPSON					

MINE CONSTRUCTION CONTRACTORS (GROUP C) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
GORDON A. MACKACHERN FOR:	1982	4	58	66,542	60.11
INCO METALS COMPANY	1981	0	0	68,105	0
	1980	1	35	105,338	9.49
	1979	3	23	104,268	28.77
	1978	2	58	96,856	20.65
THOMPSON					
MALCOM CONSTRUCTION	1982	0	0	4,566	0
(THOMPSON) LTD. FOR:	1981	0	0	2,365	0
INCO METALS COMPANY	1980	0	0	2,398	0
	1979	0	0	1,747	0
	1978	0	0	2,160	0
THOMPSON T-1					
MARTEL ERECTORS LTD. FOR: SHERRITT GORDON MINES LIMITED	1982	1	30	1,762	567.54
RUTTAN MINE					
NORTHWEST ELECTRIC (FLIN FLON) CO. FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED	1982	0	0	4,797	0
FLIN FLON					
NORTHWEST ELECTRIC	1982	5	77	26,926	185.69
(THOMPSON) CO. FOR:	1981	1	8	20,550	48.66
INCO METALS COMPANY	1980	1	1	41,203	24.27
	1979	0	0	13,875	0
	1978	0	0	1,236	0
THOMPSON T-1					
GEORGE RAMSAY CUSTOM IRON	1982	2	42	24,254	82.46
WORKS LTD. FOR: HUDSON	1981	6	319	48,827	122.88
BAY MINING AND SMELTING	1980	2	177	35,369	56.55
CO., LIMITED	1979	1	4	21,538	46.43
	1978	2	48	27,815	71.90
SNOW LAKE					
THYSSEN MINING CONSTRUCTION	1982	1	7	24,572	40.70
OF CANADA LTD. FOR:	1981	4	41	33,839	118.21
HUDSON BAY MINING AND	1980	0	0	5,460	0
SMELTING CO., LIMITED	1979	0	0	14,500	0
VARIOUS LOCATIONS					

MINE CONSTRUCTION CONTRACTORS (GROUP C) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
THYSSEN MINING CONSTRUCTION	1982	1	52	38,261	26.14
OF CANADA LTD. FOR: INCO	1981	1	119	47,889	20.88
METALS COMPANY	1980	14	340	146,464	95.59
	1979	0	0	9,878	0
	1978	0	0	10,874	0
THOMPSON					
THYSSEN MINING CONSTRUCTION	1982	0	0	0	0
OF CANADA LTD. FOR:	1981	3	133	4,447	674.61
SHERRITT GORDON MINES	1980	0	0	11,166	0
LIMITED					
RUTTAN MINE					
J.C. WILSON CONSTRUCTION	1982	0	0	0	0
FOR: SHERRITT GORDON	1981	0	0	8,093	0
MINES LIMITED	1980	0	0	10,421	0
	1979	0	17*	11,145	0
	1978	1	1	10,379	96.35
RUTTAN MINE					

QUARRIES (GROUP D)

BERGNER EQUIPMENT RENTALS	1982	0	0	0	0
LTD. FOR: DOMTAR	1981	0	0	4,520	0
CONSTRUCTION MATERIALS LTD.	1980	0	0	3,195	0
	1979	0	0	3,311	0
	1978	0	0	7,517	0
GYPSUMVILLE					
BUCHKO ENTERPRISES LTD.	1982	1	27	37,122	26.94
BISSETT AREA					
CAMBRIAN BLASTING CO. LTD.	1982	0	0	20,275	0
(BRODA CONSTRUCTION INC.)	1981	1	1	8,728	114.57
C.N.R. QUARRY (MILLWATER)					
CANADA CEMENT LAFARGE LTD.	1982	0	0	22,344	0
PLANT NO. 13A	1981	0	0	37,460	0
	1980	0	0	41,452	0
	1979	0	0	41,867	0
	1978	0	0	39,214	0
STEEP ROCK					

QUARRIES (GROUP D)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
CITY OF WINNIPEG	1982	0	0	2,155	0
PRIMARY MATERIALS DIVISION	1981	0	0	2,670	0
	1980	3	25	15,964	187.92
	1979	1	5	15,721	63.60
	1978	0	16*	13,615	0
STONY MOUNTAIN					
COLD SPRING GRANITE	1982	6	49	35,881	167.22
(CANADA) LIMITED	1981	10	69	30,321	329.80
	1980	12	127	35,051	342.36
	1979	2	5	49,367	40.51
BROOKFIELD	1978	2	27	54,523	55.02
(LAC DU BONNET)					
GENSTAR CEMENT LTD.	1982	0	0	11,836	0
	1981	0	0	18,144	0
	1980	0	0	17,501	0
	1979	0	0	16,160	0
	1978	0	0	17,180	0
MAFEKING					
GILLIS QUARRIES LTD.	1982	16	271	65,192	245.43
	1981	0	0	55,977	0
	1980	1	91	47,688	20.97
	1979	1	71	60,235	16.60
	1978	7	64	77,800	89.97
GARSON					
MIDWEST QUARRIES LIMITED	1982	2	144	10,683	287.20
	1981	1	6	14,502	68.96
	1980	2	49	6,964	287.19
	1979	1	7	776	1288.65
	1978	1	7	4,800	288.33
PNEUMATIC DRILLING AND	1982	0	0	0	0
BLASTING LIMITED	1981	0	0	13,681	0
	1980	0	0	5,570	0
STONEWALL					
STANDARD LIMESTONE	1982	6	81	32,100	186.92
QUARRIES	1981	0	0	2,823	0
	1980	1	40	43,746	22.86
	1979	0	0	45,203	0
	1978	0	0	44,962	0
STONEWALL (WINNIPEG)					

QUARRIES (GROUP D) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
STEEL BROTHERS CANADA LTD.	1982	2	7	43,610	45.86
	1981	1	11	45,805	21.83
	1980	2	11	47,843	41.80
	1979	2	5	49,890	40.08
	1978	1	69	51,056	19.59
FAULKNER					
STONEWALL QUARRIES LTD.	1982	3	48	8,219	365.01
(STANDARD LIMESTONE)	1981	0	0	7,604	0
	1980	0	0	5,696	0
STONEWALL					
WESTERN GYPSUM (1978)	1982	0	0	9,245	0
LTD.	1981	0	0	21,650	0
	1980	0	0	18,044	0
	1979	0	0	13,290	0
	1978	0	0	6,175	0
AMARANTH					
WHITESHELL QUARRIES LTD.	1982	0	0	1,730	0
WINNIPEG					

GRAVEL AND SAND PITS (GROUP E)

ALSIP BRICK, TILE AND	1982	0	0	0	0
LUMBER CO., LTD.	1981	0	0	0	0
	1980	0	0	1,961	0
	1979	0	0	0	0
	1978	0	0	2,352	0
BEAUSEJOUR					
ARGO ROCK LTD.	1982	0	0	6,352	0
(FLUX PIT)	1981	0	0	7,159	0
	1980	0	0	8,307	0
	1979	0	0	13,088	0
	1978	0	0	10,751	0
THOMPSON					
BRADLEY SAND & GRAVEL LTD.	1982	3	128	30,401	98.68
	1981	2	12	30,317	65.97
	1980	7	61	39,614	176.71
	1979	6	107	37,472	160.11
	1978	3	19	47,759	62.82
BRANDON					

GRAVEL AND SAND PITS (GROUP E) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
BUILDING PRODUCTS & CONCRETE SUPPLY	1982	0	0	0	0
	1981	0	0	15,350	0
	1980	1	2	40,052	24.97
	1979	2	5	66,885	29.90
	1978	8	235	75,292	106.25
CITY OF WINNIPEG ENGINEERING DEPARTMENT	1982	1	10	5,407	184.95
	1981	1	1	6,249	160.03
	1980	0	0	14,983	0
	1979	1	5	16,691	59.91
BIRDS HILL AND PINE RIDGE	1978	2	15	19,381	103.19
FRASER SAND AND GRAVEL CO. LTD.	1982	2	5	26,283	76.09
	1981	3	34	49,173	61.01
	1980	1	7	48,730	20.52
	1979	1	10	59,265	16.87
	1978	2	27	61,165	32.70
GENSTAR MATERIALS LTD.	1982	1	4	21,964	45.53
BIRDS HILL AND BRANDON					
SMOOK BROS. LTD. FOR: INCO METALS COMPANY	1982	1	25	13,140	77.10
	1981	0	0	39,198	0
	1980	1	4	33,651	29.72
	1979	2	17	24,319	82.24
THOMPSON	1978	0	0	9,674	0
STEEL BROTHERS CANADA LTD.	1982	0	0	1,159	0
	1981	0	0	24,567	0
	1980	2	93	26,244	76.21
	1979	1	4	22,070	45.31
	1978	1	1	19,770	50.58
BLACK ISLAND					
STEEL BROTHERS CANADA LTD.	1982	1	6	23,794	42.03
	1981	5	62	33,230	150.47
	1980	3	7	36,641	81.88
	1979	1	3	40,143	24.91
	1978	5	22	34,769	143.81
SELKIRK					

GRAVEL AND SAND PITS (GROUP E) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
SUPERCRETE LTD.	1982	9	117	32,885	273.68
LTD.	1981	1	2	25,422	39.34
	1980	1	25	32,134	31.12
	1979	1	2	32,446	30.82
	1978	1	2	32,761	30.52
RICHER					
WESTERN CONCRETE PRODUCTS	1982	0	0	0	0
LIMITED	1981	0	0	0	0
	1980	0	0	0	0
	1979	0	0	3,458	0
	1978	0	0	4,045	0
BRANDON					
WINNIPEG SUPPLY & FUEL	1982	0	0	8,133	0
CO. LTD.	1981	3	22	9,944	301.69
	1980	1	9	18,137	55.14
	1979	1	1	25,462	39.27
	1978	2	5	30,193	66.24
GULL LAKE					
TOTALS OF ALL TRANSIENT	1982	12	863	277,869	43.19
GRAVEL AND SAND PIT	1981	15	181	345,453	43.42
OPERATIONS AS SHOWN ON	1980	18	803	472,998	38.06
THE NEXT PAGE	1979	17	750	818,894	20.75
	1978	22	601	827,967	26.57

GRAVEL AND SAND PITS (GROUP E) (continued)

TRANSIENT GRAVEL AND SAND PIT OPERATIONS TOTALLED ABOVE

NAME OF OPERATOR	P.O. ADDRESS	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED
Adam's Concrete & Gravel	Deloraine	0	0	5,100
Atchison Construction	Foxwarren	1	15	18,869
B.A. Construction	Stonewall	0	0	3,541
Birds Hill Gravel & Stone	Birds Hill	0	0	1,250
Blue Jay Enterprises	Birds Hill	0	0	2,000
Bordun Trucking	Sundown	2	40	5,481
Borger Industries	Winnipeg	1	57	9,173
Brandon, City of	Brandon	0	0	1,000
Buchko Enterprises	Arborg	2	22	8,944
Burton Construction Co.	Brandon	1	107	3,198
Canadian National Railway	Winnipeg	0	0	1,384
Cook Brothers Cartage	Swan River	0	0	3,464
Critchlow Trucking	Melita	0	0	5,400
Diamond Redi-Mix	Steinbach	0	0	4,822
Denny's Sand and Gravel	Pipestone	0	0	2,000
Derksen Trucking	Altona	0	0	7,200
Favorite Transport	Winnipeg	0	0	3,471
Ferris Construction	Dauphin	0	0	1,000
Hadiken Concrete & Supply	Swan River	1	15	6,893
Holovach Construction	Inglis	0	0	1,100
Hugh Munro Construction	Fort Whyte	0	0	15,537
Joe's Gravel Pit	Notre Dame de Lourdes	0	0	1,300
A.M. Kelly and Sons Ltd.	Winnipeg	0	0	5,186
Kildonan Concrete Products	Winnipeg	0	0	3,295
Kozak & Sons	Neepawa	0	0	1,600
Lakeshore Contracting (Man.)	Selkirk	0	0	2,720
Lester's Cartage	Winnipeg	0	0	7,534
Mac Hauling	St. Pierre	0	0	3,824
Marquette Gravel Supply	St. Eustache	0	0	1,940
Marval Construction	Stonewall	0	0	15,620
Mulder Construction	Winnipeg	0	0	10,493
Nelson River Const. Ltd.	St. Boniface	0	0	19,092
Niakwa Construction	Stonewall	1	21	11,612
Oakridge Gravel	Steinbach	0	0	1,338
Riverside Gravel Co. Ltd.	Winnipeg	0	0	27,431
Selk-Ridge Gravel Ltd.	Winnipeg	1	28	1,417
St. Pierre Gravel	St. Pierre	0	0	12,907
Springfield, R.M. of	Oakbank	0	0	1,832
C & B Sterling Enterprises	Grandview	0	0	1,852
Three Way Trucking	Thompson	2	558	7,600
Turtle Mountain Sand & Gravel Ltd.	Boissevain	0	0	3,067
B. Vermette Backhoe Service	St. Anne	0	0	2,563
Wilkinson Trucking	The Pas	0	0	2,000
Winkler Construction	Winkler	0	0	4,276
Zenith Paving	Brandon	0	0	2,376
TOTAL OF 26 OPERATORS EACH HAVING LESS THAN 1,000 MANHOURS	Various	0	0	15,082
		12	863	277,869

CLAY PITS (GROUP E)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
CANADA CEMENT LAFARGE LTD.	1982	0	0	5,796	0
	1981	0	0	8,839	0
	1980	0	0	7,592	0
	1979	0	0	12,333	0
	1978	0	0	11,935	0
FORT WHYTE					
GENSTAR CEMENT LTD.	1982	0	0	970	0
	1981	0	0	1,926	0
	1980	0	0	3,059	0
	1979	0	0	1,487	0
	1978	0	0	2,086	0
TUXEDO					

BENTONITE (GROUP E)

PEMBINA MOUNTAIN CLAYS INC.	1982	0	0	5,448	0
	1981	0	0	5,490	0
	1980	0	0	5,783	0
	1979	0	0	4,608	0
	1978	0	0	5,553	0
MIAMI					
PEMBINA MOUNTAIN CLAYS INC.	1982	0	0	13,100	0
	1981	0	0	11,934	0
	1980	1	11	12,794	78.16
	1979	2	9	9,918	201.65
	1978	0	0	8,396	0
MORDEN					

PEAT (GROUP E)

FISONS WESTERN CORPORATION	1982	36	432	241,396	149.13
	1981	40	307	332,385	120.34
	1980	49	395	278,738	175.79
	1979	23	184	201,662	114.05
	1978	27	242	220,431	122.49
ELMA AND JULIUS					
PREMIER WEST PEAT	1982	0	0	21,866	0
GIROUX					

TABLE NO. 4

MANHOURS WORKED AND LOST TIME INJURIES - BY COMPANY

CONTRACT DIAMOND DRILLING (GROUP F)

CLASS OF OPERATION	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
AMISK DRILLING	1982	4	58	82,042	48.76
	1981	5	427	118,693	42.13
	1980	18	624	124,432	144.66
	1979	3	426	71,332	42.05
	1978	7	112	54,472	128.51
VARIOUS LOCATIONS					
CONNORS DRILLING LTD.	1982	0	0	0	0
	1981	0	0	0	0
	1980	0	0	2,655	0
	1979	0	0	617	0
	1978	1	21	14,192	70.46
VARIOUS LOCATIONS					
HEATH AND SHERWOOD DRILLING	1982	0	0	924	0
	1981	0	0	0	0
	1980	7	291	26,159	267.59
	1979	9	130	58,750	153.19
THOMPSON					
KENORA DIAMOND DRILLING LTD.	1982	0	0	924	0
	1981	2	37	19,961	100.20
	1980	0	0	12,437	0
	1979	5	75	21,240	235.40
	1978	1	6	13,640	73.31
VARIOUS LOCATIONS					
LONGYEAR CANADA INC.	1982	0	0	0	0
	1981	0	0	0	0
	1980	0	0	11,760	0
	1979	0	0	3,436	0
	1978	1	22	5,192	192.60
VARIOUS LOCATIONS					
MAISONNEUVE ENERGY MATERIALS	1982	0	0	0	0
	1981	0	0	4,056	0
LAC DU BONNET					
R.M. McISSAC DRILLING	1982	6	69	27,658	216.94
	1981	7	117	34,089	205.34
	1980	7	73	15,230	459.62
VARIOUS LOCATIONS					

CONTRACT DIAMOND DRILLING (GROUP F) (continued)

CLASS OF OPERATION	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
MIDWEST DRILLING COMPANY	1982	10	143	101,057	98.95
	1981	21	930	323,412	64.93
	1980	27	615	206,811	130.55
	1979	26	287	184,139	141.19
	1978	11	387	141,996	77.47
VARIOUS LOCATIONS					
N. MORRISETTE DIAMOND DRILLING	1982	0	0	0	0
	1981	0	0	0	0
	1980	1	5	3,312	301.93
	1979	1	21	24,665	40.54
	1978	0	0	3,918	0
SNOW LAKE					
WESCORE DRILLING LIMITED	1982	2	71	15,877	125.96
	1981	3	17	37,142	80.77
	1980	5	92	46,801	106.84
	1979	12	87	73,672	162.88
	1978	9	44	55,852	161.14
VARIOUS LOCATIONS					
WYNNE DRILLING LTD.	1982	2	10	20,955	95.44
	1981	0	0	16,145	0
BISSETT					

TABLE NO. 5

NUMBER OF LOST TIME INJURIES 1982 CLASSIFIED BY OPERATION OR WORK PERFORMED	MINES GROUPS A - B - C			GROUP D	GROUP E	GROUP F	TOTAL ALL MINING OPERATIONS
	SURFACE	UNDERGROUND	TOTAL MINES	QUARRIES	GRAVEL & SAND PITS, CLAY, BENTONITE, PEAT	CONTRACT DIAMOND DRILLING	
ROCK DRILLING	1	40	41	4	0	0	45
ROCKBOLTING	0	10	10	0	0	0	10
BLASTING	0	1	1	0	0	0	1
SCALING	1	14	15	0	0	0	15
TIMBERING - STAGING - CARPENTRY	3	22	25	0	1	0	26
MUCKING: HAND	3	1	4	0	2	0	6
MUCKING: MECHANICAL LOADING	2	16	18	3	2	0	23
SLUSHING	0	1	1	0	0	0	1
SCRAMS & DRAWPOINTS	0	4	4	0	0	0	4
CHUTE PULLING	0	6	6	0	0	0	6
MINE CARS - TRUCKS HANDLING	0	8	8	0	0	1	9
MECHANICAL HAULAGE	2	9	11	3	4	0	18
RAILWAY CARS: HANDLING	3	0	3	0	4	0	7
SURFACE TRUCKS, LOADERS	7	0	7	4	2	0	13
GRIZZLIES	1	3	4	0	0	0	4
CRUSHING	2	3	5	4	7	0	16
CONVEYORS	4	2	6	1	3	0	10
HOISTING: MEN - MATERIALS	2	3	5	2	0	0	7
MATERIALS HANDLING	25	13	38	2	21	3	64
TRAVELLING: LADDERS - STAIRS	1	5	6	0	1	0	7
TRAVELLING: LEVEL	11	8	19	5	2	0	26
INSTALLATION - MAINTENANCE - REPAIR	34	8	42	2	9	2	55
SHOPS: METAL WORK - SHEARING	0	0	0	0	2	0	2
WELDING - BURNING	4	3	7	1	2	0	10
SHARPENING - GRINDING	5	4	9	4	1	1	15
MILLS: TENDING - MILLS	11	0	11	0	0	0	11
TANKS - LINES	5	0	5	0	0	0	5
ROASTERS - SHELTERS - DRYERS	4	0	4	1	0	0	5
ROASTERS - TENDING FURNACES	12	0	12	0	0	0	12
ROASTERS - HANDLING FEED PRODUCTS	18	0	18	0	0	0	18
REFINERIES: CASTING	6	0	6	0	0	0	6
HANDLING ANODES - CATHODES	20	0	20	0	0	0	20
TENDING TANKS - LINES	21	0	21	0	0	0	21
DIAMOND DRILLING - GENERAL	1	5	6	0	0	9	15
DIAMOND DRILLING - MOVING, SET-UP	2	3	5	0	0	7	12
DIAMOND DRILLING - CUT LINES	1	0	1	0	0	1	2
NOT CLASSIFIED	19	3	22	0	3	0	25
TOTALS	231	195	426	36	66	24	552

TABLE NO. 6

NUMBER OF LOST TIME INJURIES 1982 CLASSIFIED BY OPERATION OR WORK PERFORMED	MINES GROUPS A - B - C			GROUP D	GROUP E	GROUP F	TOTAL ALL MINING OPERATIONS
	SURFACE	UNDERGROUND	TOTAL MINES	QUARRIES	GRAVEL & SAND PITS, CLAY, BENTONITE, PEAT	CONTRACT DIAMOND DRILLING	
MOBILE EQUIPMENT	2	6	8	2	5	2	17
STRIKING - STRUCK BY	21	18	39	9	4	0	52
BARS/OVER FULCRUM	1	2	3	0	1	0	4
HAND TOOLS	13	8	21	4	6	4	35
POWER TOOLS	7	15	22	3	13	4	42
CAUGHT BETWEEN MACHINERY-EQUIP.	3	11	14	0	3	0	17
SLIPS - FALLS - TWISTS: LEVEL	46	21	67	6	12	3	88
FALLS FROM HEIGHTS	18	13	31	1	3	1	36
LIFTING - MOVING	66	42	108	6	11	5	130
FALLS OF GROUND	0	24	24	0	0	0	24
FALLING OBJECTS	7	19	26	1	2	2	31
RUN OF LOOSE MATERIALS	1	0	1	0	1	0	2
FOREIGN BODIES	6	2	8	1	0	0	9
SHARP OBJECTS	9	3	12	1	3	0	16
HOT MATERIALS	11	0	11	0	0	1	12
CHEMICALS	3	2	5	0	0	0	5
COMPRESSED AIR - GASES	2	2	4	0	0	0	4
EXPLOSIVES	0	2	2	0	0	0	2
ELECTRICITY	0	1	1	0	0	1	2
STEAM	2	0	2	0	0	0	2
NOXIOUS GASES	2	1	3	0	0	0	3
FLASHES: ELECTRICITY, WELDING	3	1	4	0	0	0	4
FIRES	1	0	1	0	0	0	1
NOT CLASSIFIED	7	2	9	2	2	1	14
TOTALS	231	195	426	36	66	24	552

TABLE NO. 7

NUMBER OF LOST TIME INJURIES 1982 CLASSIFIED BY OPERATION OR WORK PERFORMED	MINES GROUPS A - B - C			GROUP D	GROUP E	GROUP F	
	SURFACE	UNDERGROUND	TOTAL MINES	QUARRIES	GRAVEL & SAND PITS, CLAY, BENTONITE, PEAT	CONTRACT DIAMOND DRILLING	TOTAL ALL MINING OPERATIONS
AMPUTATIONS	0	3	3	3	1	0	7
DISLOCATIONS	2	1	3	0	1	0	4
FRACTURES	14	19	33	1	0	3	37
MULTIPLE INJURIES	7	8	15	1	1	1	18
EYE INJURIES	21	9	30	1	2	1	34
HERNIA	3	0	3	1	0	0	4
STRAINS AND SPRAINS	101	73	174	19	33	5	231
CUTS AND BRUISES	68	71	139	9	23	13	184
CONCUSSIONS	1	2	3	0	2	0	5
BURNS - FLASH	1	1	2	0	0	0	2
BURNS - OTHER	9	2	11	0	0	0	11
ELECTRIC SHOCK	0	0	0	0	0	0	0
POISONING - ASPHYXIATION	1	2	3	0	0	0	3
INFECTION	1	0	1	0	1	0	2
DERMATITIS	0	0	0	0	0	0	0
NOT CLASSIFIED	2	4	6	1	2	1	10
TOTALS	231	195	426	36	66	24	552

INCIDENTS INVOLVING EXPLOSIVES - 1982

DESCRIPTION OF INCIDENTS	INJURIES
A blaster from underground was requested to blast a hang-up in the concentrate loadout area of the mill. One entrance was not cleared or guarded.	No Injuries
Two longhole drillers failed to report that explosives which they removed from a missed uphole fell into an open stope.	No Injuries
An improperly guarded blast was set off by a blasting crew. One workman, mucking in the area, was shaken up by the concussion and onrush of muck.	No Injuries
Clearance was given by supervision to initiate an underground blast while a worker was still in the area. A shift boss signed the release without checking the tag board.	No Injuries
Two men were caught in a blast of oversize on an ore pass grizzly. The blast was improperly guarded and the men did not wait the required time before entering a blasting area.	Facial injuries (two men)
Uncontrolled flyrock from a quarry blast struck a schoolhouse and nearby residences.	No Injuries

SUMMARY OF FATAL ACCIDENTS - 1982

DATE AND PLACE	NAME	CAUSE
January 26 Smook Bros. Ltd. Thompson Lake Pit	Artur Fernandes	While engaged in road building across a lake, Artur Fernandes was drowned when the D-8 Caterpillar bulldozer which he was operating slid off the end of the road and through the ice to the lake bottom. At the time of the accident, Mr. Fernandes was attempting to break the ice with the dozer blade.
March 8 Aurora Quarrying Ltd. Rod Mine	Vernon Thomas Cochrane	The shaft crew had timbered two sets and were installing the shaft guides. As the guides were being lifted, the top end of one of them caught, causing the bottom end to swing across the compartment, dislodging the miner from the timber he was sitting on. He fell to the blasting set where a plank broke allowing him to fall to the shaft bottom.
June 14 Inco Metals Company	David Lapierre	Struck by a piece of loose while scaling.

DETAILS OF FATAL ACCIDENT

Smook Bros. (Thompson) Ltd.

Artur Fernandes, 44 years of age, married, his wife and two children living in Portugal, died by drowning on January 26, 1982 at approximately 12:10 p.m. when the D-8 Caterpillar bulldozer which he was operating slid over the end of the road being constructed across a lake and into 25 feet of water.

Mr. Fernandes was employed by Smook Bros. (Thompson) Ltd. the sub-contractor for Kesmark Marine. The latter contracted with Inco Metals Company for the dredging of overburden from the Thompson Open Pit. Mr. Fernandes had worked periodically for Smook Bros. since January 12, 1981, and was last rehired on January 19, 1982. His direct supervisor, Bob Smook, had known him since 1973 and considered him to be a skilled bulldozer operator. Mr. Fernandes held a Class 1 Driver's Licence.

As part of its contract, Smook Bros. (Thompson) Ltd. was required to construct a road for the 42 inch diameter discharge pipeline, extending from the dredge at Thompson Lake to the discharge area, a distance of approximately 3 1/2 miles. At the time of the accident, the road was being constructed across a small lake and had been advanced about 200 feet from the shore. Waste rock for the road was being unloaded about 10 feet from the end of the road. The bulldozer then levelled the rock, leaving a berm or ridge of rock along the sides of the 35 foot wide road and across the end. The berm at the end of the road when pushed forward would break the ice allowing the waste rock to settle to the angle of repose. The water was approximately 25 feet deep at this point and the ice about 2 feet thick.

On the day of the accident, the outside temperature was -25°C. Mr. Fernandes' truck was out for repairs and the regular bulldozer operator, Mr. Koli Sigurdsson called in sick. Mr. Fernandes agreed to replace Mr. Sigurdsson for the day. The supervisor, Bob Smook, then drove him out to the site of the job. Mr. Smook did not give any special instructions, believing that Mr. Fernandes was familar with the work. In the course of the morning, Mr. Fernandes was visited by two truck drivers, Messrs. Herb Waldner and Scott Fussey, an Inco Safety Inspector, and Mr. Nick Smook, President of Smook Bros. (Thompson) Ltd. The latter explained to Mr. Fernandes how important it was to keep a big berm in front of him at all times and also told him to keep pushing the blade of the bulldozer down, as this would leave a larger berm and also keep the ice clear. Until 11:00 a.m. none of these visitors saw anything wrong with what Mr. Fernandes was doing. The berms were in place alongside and at the end of the road.

At about 11:00 a.m. Mr. Herb Waldner arrived to dump a load, and noted that there was a pile of 4 to 5 cubic yards of waste rock 8 to 10 feet beyond the the end of the road. There was open water between the rock pile and the end of the road. Waldner commented to Fernandes that it looked "haywire". However, he subsequently dumped two more truck loads before lunch, and did not remember seeing anything wrong at the time.

At about 12:10 p.m. another driver, Mr. Scott Fussey backed his truck down the road to dump another load. As he did so he observed the following sequence of events in his mirror. The berm at the end of the road had been levelled permitting Mr. Fernandes to drive his bulldozer to the end of the road where he banged the blade on the ice in an attempt to break through it. Next, he drove to the right side of the road where he again used the blade to break the ice. As the blade broke through the ice, the bulldozer tipped forward at an angle of about 45 degrees. Mr. Fernandes then attempted to back up the bulldozer but the tracks spun on the loose rocks. The machine moved forward a foot or so and stopped. At this point Mr. Fussey took his glance off the mirror, put on the parking brake and climbed out of the truck. By this time, the bulldozer had disappeared under the water and ice.

Mr. Fussey immediately picked up a tree and tried to move blocks of ice away from the hole so that Mr. Fernandes could have access to the surface of the

water. However, Mr. Fernandes did not surface. A few minutes later Mr. Bob Smook arrived on the scene to take Mr. Fernandes to lunch. On learning of the accident, he left to notify the RCMP and the Mines Inspector, while Mr. Fussey remained on the scene. Recovery operations were postponed until the next day, January 27th, when an RCMP diving team recovered the body of Mr. Fernandes. On January 28th an autopsy established that death was caused by drowning. On January 30th the bulldozer was pulled out of the water, in the presence of the RCMP officers, several of Inco's staff, and the Mines Inspector.

After the bulldozer was removed from the water an independent mechanical inspection indicated that the machine was in good mechanical condition. The following particulars were noted: the gear shift was in neutral on the reverse side; the throttle lever was in the idle position; both footbrake pedals were operating properly; both clutch levers were frozen, but all linkages were in good order; the parking brake was in the "off" position; the roll-over protective structure was in place; and the blade was 8 inches to 12 inches above the ground.

The machine, with all attachments, was estimated to weigh 76,000 pounds.

An inquest under The Fatality Inquiries Act was held at Thompson, Manitoba on April 1, 1982. Presiding was Provincial Judge C.K. Newcombe, with Crown Attorney, G. Reid representing the Crown. Judge Newcombe found that Mr. Fernandes had died by drowning; that such death was largely brought about by his own negligence and carelessness; and that no unlawful act or culpable negligence was attached to any other person. No recommendations were made.

Following the accident, the ice was broken by blasting, and the roll-over protective structure was removed while working near water.

Aurora Quarrying Ltd.

Mr. Vernon Thomas Cochrane, 33 years old, married and having two children, died on March 8th, 1982, at about 7:05 p.m., of injuries sustained when he fell a distance of 40 feet to the bottom of a shaft. The shaft was being sunk for Hudson Bay Mining and Smelting Co., Limited at its Rod Mine, six miles southeast of Snow Lake, Manitoba. Aurora Quarrying Ltd. was the sinking contractor, and Mr. Cochrane was one of Aurora's employees. He had several years of experience in shaft sinking work.

At the time of the accident, the shaft had reached a depth of 1500 feet. The shaft was timbered with sets 8 feet high measuring 20 feet 8 inches by 7 feet 4 inches in plan, and divided into three compartments to accommodate a manway, skip-cage and skip. The latter two were used for bucket travel during sinking. Suspended about two feet below the bottom timber set was the blasting set which served as a working platform during timbering and to protect the timber from the effects of blasting at the shaft bottom.

On the day of the accident, the afternoon shift (4:00 p.m. to 12:00 midnight) checked in as usual with the shaft captain, Mr. Frank Vinkle. Six men were on that shift: Mr. Stewart Cochrane as shaft leader; Messrs. Nick Shaw, Conrad Kirkness and Vernon Cochrane as shaftmen; Mr. Bill Beck as deckman, and Mr. Garth Scott as hoistman. The shaft captain instructed them to timber two sets and install guides, and left them in the care of the shaft leader.

The timber was approximately 46 feet above the shaft bottom where a round had been blasted on the preceeding shift. One of the sinking buckets was left on the bottom. The blasting set was lowered to approximately 30 feet above the shaft bottom and the openings through which the buckets travelled in the skip-cage and skip compartments were covered with 3 inch by 12 inch planks and 2 inch by 12 inch planks respectively. All planks were cleated to prevent lateral movement.

By about 7:00 p.m. the crew had installed two new sets of timber, and were positioned to install a new set of two guides in the cage-skip compartment. The shaft guides are timber, 5 inches by 7 inches in section and 16 feet long, and are used to guide the shaft conveyance for vertical travel. They are attached by brackets to the dividers between compartments. Vernon Cochrane was sitting astride the second divider from the bottom, 10 feet above the blasting set, between the skip and cage-skip compartments. Nick Shaw was sitting opposite him on a divider between the cage-skip and manway compartments. The shaft leader, Stewart Cochrane was standing on the next higher set above Vernon Cochrane. He was in control of the bell cord (used to ring signals to the hoistman, directing movements of the sinking bucket). Conrad Kirkness was sitting on the divider above Nick Shaw. Hanging between these four men was a new set of two guides, suspended by cable slings from the sinking bucket above.

The shaft leader rang the bell cord in order to have the hoistman raise the bucket - and the two guides hanging below it - to the exact vertical position required for their installation. The hoistman responded by slowly raising bucket and guides. It is assumed that the top of one of the two hanging guides caught the bottom of a guide already fixed in place. This would cause the bottom of this guide to swing across the compartment and knock Vernon Cochrane off his precarious seat astride the divider. The other shaftmen saw him fall to the blasting set where his fall broke a plank covering the opening in the blasting set permitting him to fall to the shaft bottom. Stewart Cochrane looked down and saw Vernon Cochrane in the bucket below.

The shaft leader rang the 9 bell (danger) signal, followed by 2 bells to lower the bucket. The crew unhooked the hanging guides. Stewart Cochrane and Nick Shaw then climbed into the bucket and ascended to surface to fetch a stretcher, leaving Conrad Kirkness alone at the bottom with Vernon Cochrane. Meanwhile, the deckman, Bill Beck, had telephoned the shaft captain and, on the latter's instructions, contacted the ambulance, doctor, and RCMP. Stewart Cochrane and Nick Shaw descended again to the shaft bottom. The crew decided to bring Vernon Cochrane to surface as he was, that is, inside the bucket. They detached the one bucket from the hoisting rope, attached the other, with Vernon Cochrane inside it, and all rode to surface. Dr. McLeod of Snow Lake had arrived, and pronounced Vernon Cochrane dead.

Subsequent investigation revealed that the plank which broke had been significantly weakened by a large knot.

Since the accident, Aurora Quarrying Ltd. has changed the sinking procedure so that only one guide will be installed at a time. This means that even if a guide should again swing across a compartment; there will be no one at the other side to be hit by it. Aurora Quarrying Ltd. has also built a new steel cover for the openings in the blasting set, to eliminate the danger of a weak plank.

An inquest was held before his Honour Judge K F. Stefanson on September 21, 1982, at Snow Lake. Judge Stefanson found that death was accidental, and attached no culpable negligence to anyone.

Inco Metals Company

On June 14, 1982, at approximately 1:00 p.m., Mr. David Anthony Lapierre was fatally injured when struck by loose while scaling in the 028 stope above the 3200 Level of the T-1 Mine of Inco Metals Company, Thompson, Manitoba. Mr. Lapierre was 32 years old, single and with no dependents.

Mr. Lapierre had mining experience with Patrick Harrison Company and Aurora Quarrying Limited before being hired by Inco Metals Company on March 23, 1973. His qualifications included timberman, trammer, L.H.D. operator, driller and stope leader, although at the time of the accident he was working as a driller. He had worked in 028 stope for about two weeks.

The 028 stope is mined by mechanized cut and fill method. It is about 700 feet long, varies in width from 10 to 20 feet and dips at about 70° east. Access is by three manways from the 3200 Level below and two service raises to the 2800 Level above. Mining was being carried out on the 7th cut that reached about 55 feet above the 3200 Level. The breast had been advanced 80 feet south of the 028.1 service raise at the time of the accident.

On June 14, 1982 the stope crew consisted of Ron Grocholski, stopeleader; Dave Lapierre and Glen Hayden, drillers; and Neil Marsden, L.H.D. operator. The Mine Foreman, Wayne Lapierre, brother of the deceased, instructed Grocholski at the start of the shift to take a slash at the north end of the stope while the deceased and Hayden were to rockbolt, screen and take a breast at the south end. Marsden was to operate the scooptram.

Wayne Lapierre confirmed this line up during his visit to the stope at about 9:30 a.m. when he was accompanied by Alan Richardson, Mine Manager.

Lapierre and Hayden completed bolting and screening, and blasted a nine hole breast shortly after 12:00 noon. The crew had lunch while the smoke cleared then Grocholski returned to his work at the north end of the stope and the other three returned to the south end. Lapierre and Hayden went up on the muckpile, washed down, washed out a missed hole, and sawed off two rockbolts which were sticking into the new muckpile. Lapierre then started scaling, while Hayden began to set up a stoper for rockbolting.

Hayden was standing with his back towards Lapierre and about six feet north of him when he heard a large amount of loose falling. On turning, he could not see Lapierre but saw a large chunk of loose where he had been scaling. On approaching, Hayden noticed Lapierre's light under the chunk and could see his back and hear him calling. Hayden grabbed a scaling bar and tried to lift the chunk but could not. He sent Marsden for help. Lapierre complained about his arm and difficulty in breathing. When Grocholski arrived they again tried to lift the chunk unsuccessfully, so Grocholski went for more help. He returned after 15 to 20 minutes wih additional men and a jack. Lapierre had stopped talking 5 minutes before. Using the jack and bar, the men managed to lift the chunk sufficiently to pull Lapierre from under it. Artificial respiration was started immediately. At approxiamtely 1:45 Sheila Closen, industrial nurse, arrived with oxygen and a First Aid Kit. She began cardiac pulmonary resuscitation. Dr. Redekop arrived and pronounced Lapierre dead at 2:15 p.m.

Investigation at the site of the accident revealed that the top of the muckpile which sloped towards the face was five feet below the back at a point approximately 25 feet from the new face, and 8 feet below the back at the accident site. The stope was 14 feet wide. Sulphide matrix ore extended 9 feet from the hangingwall and a mineralized schist 5 feet from the footwall. The contact between these units was noted in the chunk which fell.

Whereas the back had been rockbolted and screened to 28 feet from the new face, bolts only had been installed to 14 feet from the face. The loose which fell from the newly exposed back extended from 2 feet to 11 feet from the face. It was 9 feet long by 4 1/2 feet wide, and 1 foot thick and weighed approximately 3 1/2 tons. The south end of the loose was partially supported by a rockbolt.

An Inquest was held on August 23, 1982 at Thompson. Provincial Judge C K. Newcombe presided, and Crown Attorney G. Reid represented the Crown. Judge Newcombe found that death was accidental. He attached no blame to any person, natural or corporate.

No recommendations were made.

POOR

QUALITY

ORIGINAL